IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Yuichi Ito et al. Group Art Unit: 1796

Application No. 10/584,461 Examiner: Sanza L. McCLENDON

Filed: June 22, 2006

For: CATIONIC POLYMERIZABLE RESIN COMPOSITION

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 CFR 1.132

Sir:

I, Yuichi Ito, I was graduated from Science University of Tokyo, Department of industrial chemistry. In March 1993, I received a degree of Master in Department of industrial chemistry, in Science University of Tokyo.

Since April 1993, I have been an employee of MITSUI Chemicals Ltd. (now Mitsui Chemicals, Inc.) In the year of 1993, I had been assigned to Mobara factory. Since June 2002, I have been engaged in research work concerning development of adhesives.

2. I am a first named inventor of the above-identified application.

3. I have carried out the following examples in order to demonstrate the superior and unexpected results of the present invention.

Examples 11 to 16

Formulating in the same manner as in Example 1 or 2 of the present specification, except that the kinds or amounts of (A) a compound having at least one functional group capable of cationic ring-opening polymerization in one molecular chain, (C) a vinyl ether and/or a reaction product of a vinyl ether with an organic carboxylic acid, and (B) a cationic polymerization initiator were varied as shown in Table 1-1, evaluations were carried out in accordance with the method for curability described in the specification and in accordance with the following method for coloration state, and the results are shown in Table 3-1.

Comparative Examples 4 and 5

Formulating in the same manner as in the above Example 11, except that the kinds or amounts of (A) a compound having at least one functional group capable of cationic ring-opening polymerization in one molecular chain, (C) a vinyl ether and/or a reaction product of a vinyl ether with an organic carboxylic acid, and (B) a cationic polymerization initiator were varied as shown in Table 2-1, evaluations were carried out in accordance with the method for curability described in the specification

and in accordance with the following method for coloration state, and the results are shown in Table 3-1.

(Coloration state) The compositions obtained in these Examples and Comparative Examples were respectively dropped onto a glass plate (4.5cm x 2.0cm x 0.1 cm) on which a fluorine-based film of 100μm is positioned as a spacer, and then the glass plate was covered by other glass plate (4.5cm x 2.0cm x 0.1 cm) to obtain the samples for evaluation of coloration state. The light transmittances at 405nm of these samples were determined by spectrophotometer. The light transmittance of 90% or more is represented by ○ mark for one that was no colored, not less than 80% and less than 90% is represented by △ mark for one that was slightly colored, less than 80% is represented by X mark for one that was colored.

Examples 1 to 10 and Comparative Examples 1 to 3 of the specification

Coloration states of Examples and Comparative Examples of the specification were evaluated in the same manner as mentioned above and the results are shown in Table 3-1.

【Table 1－1】

	Name of Formulated Components	Examples					
		11	12	13	14	15	16
(A)	3-Ethyl-3-phenoxy methyl oxetane	97.0	99.0	99.9	97.0	99.9	95.0
	Bis(3-ethyl-3-oxetanylmethyl)ether						
(B)	RHODORSIL PHOTOINITIATOR 2074	1.6	1.6	1.6	1.6	1.6	1.6
(C)	Iso-butyl vinyl ether	3.0	1.0	0.1			
	1,4-butanediol divinyl ether						
	Iso-butoxy ethyl acetate				3.0	0.1	5.0

【Table 2－1】

	Name of Formulated Components	Comparative Examples	
		4	5
(A)	3-Ethyl-3-phenoxy methyl oxetane	85.0	85.0
	Bis(3-ethyl-3-oxetanylmethyl)ether		
	Phenyl glycidyl ether		
(B)	RHODORSIL PHOTOINITIATOR 2074	1.6	1.6
(C)	Iso-butyl vinyl ether	15.0	
	1,4-butanediol divinyl ether		
	Iso-butoxy ethyl acetate		15.0

【Table 3－1】

Evaluation item	Examples															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Curability	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Coloration state	○	○	○	○	○	○	×	×	○	○	○	○	○	○	○	○
Remarks																

【Table 3－1】continued

Evaluation item	Comparative Examples				
	1	2	3	4	5
Curability	×	×	△	○	○
Coloration state	－	－	○	△	△
Remarks	Not cured as in liquid state	Not cured as in liquid state	The cross section not cured		

4. The undersigned declares further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

Yuichi Ito

Yuichi Ito

April 7, 2008

Date